IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 2, 7-9, 12-24 and 28 and CANCEL claims 3, 4, 10, 11, 26, 27, 30 and 31 in accordance with the following:

1.   (CURRENTLY AMENDED) A method for creating a color transformation table correlating a color signal outputted from a color input device in a color space of said color input device (hereinafter referred to as a transformation source color space) with a color signal in a color space (hereinafter referred to as a transformation target color space) which is different from said transformation source color space, comprising ~~the steps of~~:

a ~~dividing step of beforehand~~ defining a plurality of regions obtained by dividing ~~the whole~~ an entire portion of said transformation target color space; and

~~a color transformation table creating step of~~ creating ~~said~~ a color transformation table by using a plurality of color transformation formulas corresponding to said plural regions, respectively, said plural regions being defined ~~at said dividing step.~~ when being divided;

wherein creating said color transformation table includes:

creating a relationship between a color signal in said transformation source color space and a color signal in said transformation target color space by using said color transformation formula according to each region for each of said color transformation formulas;

determining that a color transformation result is correct when said color transformation result, into which one color signal in said transformation source color space is transformed through a color transformation formula when said relationship is created, belongs to a region corresponding to said color transformation formula; and

creating said color transformation table based on said relationship created for each of said color transformation formulas and said color transformation result determined to be correct.

2.   (CURRENTLY AMENDED) The color transformation table creating method according to claim 1 further comprising ~~the steps of~~:

~~a reading step of~~ reading a plurality of color regions on a color chart by said color input device, and outputting a color signal in said transformation target color space corresponding to each of said color regions from said color input device;

~~a colorimetric step of~~ measuring said plurality of color regions by a colorimeter, and outputting spectral reflectance corresponding to each of said color regions from said colorimeter;

~~a classifying step of~~ classifying said spectral reflectance according to which region among said plural regions in said transformation target color space a color signal in said transformation target color space corresponding to said spectral reflectance belongs to; and

~~a spectral characteristics estimating step of~~ estimating spectral characteristics of said color input device <u>based</u> on ~~the basis of~~ said color signal outputted from said color input device ~~at said reading step~~ and said spectral reflectance outputted from said colorimeter ~~at said colorimetric step~~;

wherein, ~~at~~ <u>when</u> said color transformation table ~~creating step~~ <u>is created</u>, said color transformation formula is created for each of said regions in said transformation target color space <u>based</u> on ~~the basis of~~ said spectral reflectance classified ~~at said classifying step~~ and said spectral characteristics estimated ~~at said spectral characteristics estimating step~~.

3.   (CANCELLED)

4.   (CANCELLED)

5.   (ORIGINAL) The color transformation table creating method according to claim 1, wherein said transformation target color space is a uniform color space.

6.   (ORIGINAL) The color transformation table creating method according to claim 1, wherein said plural regions have regions overlapping on each other.

7.   (CURRENTLY AMENDED) The color transformation table creating method according to claim 1, wherein~~, at said dividing step, the whole of~~ said transformation target color space is divided according to hue angle to provide said plural regions.

8.   (CURRENTLY AMENDED) The color transformation table creating method according to claim 1, wherein~~, at said dividing step, the whole of~~ said transformation target color space is divided according to chroma to provide said plural regions.

9.   (CURRENTLY AMENDED) The color transformation table creating method according to claim 1, wherein, at said dividing step, the whole of said transformation target color space is divided according to lightness to provide said plural regions.

10.   (CANCELLED)

11.   (CANCELLED)

12.   (CURRENTLY AMENDED) The color transformation table creating method according to claim 101, wherein when there are a plurality of color transformation results determined to be correct with respect to said one color signal at said determining stepdetermination, a color transformation result with respect to said one color signal is calculated at said creation processing step of said color transformation table based on the basis of values relating to distances between said plural color transformation results determined to be correct and boundaries of said regions to which said plural color transformation results belong.

13.   (CURRENTLY AMENDED) The color transformation table creating method according to claim 112, wherein when there are a plurality of color transformation results determined to be correct with respect to said one color signal at said determining step determination, a color transformation result with respect to said one color signal is calculated at said creation processing step of said color transformation table based on the basis of values relating to distances between said plural color transformation results determined to be correct and boundaries of said regions to which said plural color transformation results belong.

14.   (CURRENTLY AMENDED) The color transformation table creating method according to claim 101, wherein when there are a plurality of color transformation results with respect to said one color signal determined to be correct at said determining step determination, one of said plural color transformation results determined to be correct is selected as a color transformation result with respect to said one color signal at said creation processing step of said color transformation table based on the basis of values relating to distances between said plural color transformation results determined to be correct and boundaries of said regions to which said plural color transformation results belong.

15.   (CURRENTLY AMENDED) The color transformation table creating method according to claim ~~11~~2, wherein when there are a plurality of color transformation results with respect to said one color signal determined to be correct at said ~~determining step~~ determination, one of said plural color transformation results determined to be correct is selected as a color transformation result with respect to said one color signal at said creation ~~processing step~~ of said color transformation table based on ~~the basis of~~ values relating to distances between said plural color transformation results determined to be correct and boundaries of said regions to which said plural color transformation results belong.

16.   (CURRENTLY AMENDED) The color transformation table creating method according to claim ~~10~~1, wherein when there is no color transformation result with respect to said one color signal determined to be correct at said ~~determining step~~ determination, a color transformation result with respect to said color signal is calculated at said creation ~~processing step~~ of said color transformation table based on ~~the basis of~~ reciprocals of values relating to distances between said plural color transformation results obtained with respect to said color signal ~~at said~~ when said relationship ~~creating step~~ is created and boundaries of said regions to which said respective color transformation results belong.

17.   (CURRENTLY AMENDED) The color transformation table creating method according to claim ~~11~~2, wherein when there is no color transformation result with respect to said one color signal determined to be correct at said ~~determining step~~ determination, a color transformation result with respect to said color signal is calculated at said creation ~~processing step~~ of said color transformation table based on ~~the basis of~~ reciprocals of values relating to distances between said plural color transformation results obtained with respect to said color signal ~~at said~~ when said relationship ~~creating step~~ is created and boundaries of said regions to which said respective color transformation results belong.

18.   (CURRENTLY AMENDED) The color transformation table creating method according to claim ~~10~~1, wherein there is no color transformation result with respect to said one color signal determined to be correct at said ~~determining step~~ determination, one of a plurality of color transformation results is selected as a color transformation result with respect to said one color signal at said creation ~~processing step~~ of said color transformation table based on ~~the basis of~~ reciprocals of values relating to distances between said plural color transformation results obtained with respect to said color signal ~~at~~ when said relationship ~~creating step~~ is

created and boundaries of said regions to which said plural color transformation results belong.

19.   (CURRENTLY AMENDED) The color transformation table creating method according to claim ~~11~~2, wherein there is no color transformation result with respect to said one color signal determined to be correct at said ~~determining step~~ determination, one of a plurality of color transformation results is selected as a color transformation result with respect to said one color signal at said creation ~~processing step~~ of said color transformation table based on ~~the basis of~~ reciprocals of values relating to distances between said plural color transformation results obtained with respect to said color signal ~~at~~ when said relationship ~~creating step~~ is created and boundaries of said regions to which said plural color transformation results belong.

20.   (CURRENTLY AMENDED) The color transformation table creating method according to claim ~~10~~1, wherein said color transformation table correlates a color signal in said transformation source color space with spectral reflectance according to a color transformation result as a color signal in said transformation target color space.

21.   (CURRENTLY AMENDED) The color transformation table creating method according to claim ~~11~~2, wherein said color transformation table correlates a color signal in said transformation source color space with spectral reflectance according to a color transformation result as a color signal in said transformation destination color space.

22.   (CURRENTLY AMENDED) The color transformation table creating method according to claim 20, wherein when there are a plurality of color transformation results with respect to said one color signal determined to be correct at said ~~determining step~~ determination, spectral reflectance of said one color signal is calculated at said creation ~~processing step~~ of said color transformation table based on ~~the basis of~~ values relating to distances between said plural color transformation results determined to be correct and boundaries of said regions to which said plural color transformation results belong.

23.   (CURRENTLY AMENDED) The color transformation table creating method according to claim 21, wherein when there are a plurality of color transformation results with respect to said one color signal determined to be correct at said ~~determining step~~ determination, spectral reflectance of said one color signal is calculated at said creation ~~processing step~~ of said color transformation table based on ~~the basis of~~ values relating to distances between said plural

color transformation results determined to be correct and boundaries of said regions to which said plural color transformation results belong.

24. (CURRENTLY AMENDED) An apparatus for creating a color transformation table correlating a color signal outputted from a color input device in a color space (hereinafter referred to as a transformation source color space) of said color input device with a color signal in a color space (hereinafter referred to as a transformation target color space) which is different from said transformation source color space, comprising:

a color transformation table creation unit for creating said color transformation table by using a plurality of color transformation formulas corresponding to a plurality of regions, respectively, said regions being obtained by dividing said transformation target color space~~.~~;

said color transformation table creating unit including:

a relationship creation unit for creating a relationship between a color signal in said transformation source color space and a color signal in said transformation target color space by using said color transformation formula according to each region for each of said color transformation formulas;

a determining unit for determining that a color transformation result is correct when said color transformation result, into which one color signal in said transformation source color signal is transformed through a color transformation formula when said relationship is created by said relationship creating unit, belongs to a region corresponding to said color transformation formula; and

a creation process unit for obtaining a relationship based on plural relationships created by using said plural color transformation formulas in said relationship creation unit and said color transformation result determined to be correct by said determining unit to create said color transformation table.

25. (ORIGINAL) The color transformation table creating apparatus according to claim 24 further comprising:

an input unit for inputting a color signal in said transformation source color space corresponding to each of a plurality of color regions on a color chart, said color signal being obtained by reading said color regions by said color input device;

a colorimeter for measuring said plurality of color regions to obtain spectral reflectance corresponding to each of said color regions;

a classification unit for classifying said spectral reflectance according to which region

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among said plural regions in said transformation target color space a color signal in said transformation target color space corresponding to said spectral reflectance belongs to; and

a spectral characteristics estimation unit for estimating spectral characteristics of said color input device on the basis of said color signal inputted from said input unit and said spectral reflectance obtained by said colorimeter;

wherein said color transformation table creation unit creates a color transformation formula for each of said regions in said transformation target color space on the basis of said spectral reflectance classified by said classification unit and said spectral characteristics estimated by said spectral characteristics estimation unit.

26.   (CANCELLED)

27.   (CANCELLED)

28.   (CURRENTLY AMENDED) A computer readable record medium in which a color transformation table creating program for ~~making~~ causing a computer ~~realize a function of~~ to execute operations including creating a color transformation table correlating a color signal outputted from a color input device in a color space of said color input device (hereinafter referred to as a transformation source color space) with a color signal in a color space (hereinafter referred to as a transformation target color space) which is different from said transformation source color space is recorded~~;~~, comprising:

~~said color transformation table creating program making said computer function as: a color transformation table creation unit for~~ creating said color transformation table by using a plurality of color transformation formulas corresponding to a plurality of regions, respectively, said regions being obtained by dividing said transformation target color space~~;~~;

creating a relationship between a color signal in said transformation source color space and a color signal in said transformation target color space by using said color transformation formula according to each region for each of said color transformation formulas;

determining that a color transformation result is correct when said color transformation result, into which one color signal in said transformation source color signal is transformed through a color transformation formula when said relationship is created by said relationship creating unit, belongs to a region corresponding to said color transformation formula; and

obtaining a relationship based on plural relationships created by using said plural color transformation formulas and said color transformation result determined to be correct to create

said color transformation table.

29.   (ORIGINAL) The computer readable record medium in which a color transformation table creating program is recorded according to claim 28, wherein said color transformation table creating program makes said computer further function as:

a classification unit for classifying spectral reflectance according to which region among said plural regions in said transformation target color space a color signal in said transformation target color space corresponding to said spectral reflectance belongs to, said spectral reflectance being obtained by measuring each of a plurality of color regions on a color chart by a colorimeter; and

a spectral characteristics estimation unit for estimating spectral characteristics of said color input device on the basis of a color signal in said transformation target color space obtained for each of said color regions by reading said plurality of color regions by said color input device and said spectral reflectance obtained by said colorimeter;

wherein when said color transformation table creating program makes said computer function as said color transformation table creation unit, said color transformation formula is created for each of said regions in said transformation target color space on the basis of said spectral reflectance classified by said classification unit and said spectral characteristics estimated by said spectral characteristics estimation unit.

30.   (CANCELLED)

31.   (CANCELLED)